

MODULE VI

HAZARDOUS WASTE LANDFILLS

TABLE OF CONTENTS

| MODULE VI - HAZARDOUS WASTE LANDFILLS | Page |
|---|---|
| VI.A. Applicability..... | 1 |
| VI.B. Waste Identification | 1 |
| VI.C. General Design and Construction of Landfill Cells | 3 |
| VI.D. General Operating Requirements..... | 4 |
| VI.E. Management of Run-On/Runoff Control Facilities | 5 |
| VI.F. Inspections | 5 |
| VI.G. Procedures to Control Wind Dispersal of Wastes..... | 5 |
| VI.H. Leachate for Dust Suppression | 6 |
| VI.I. Surveying and Recordkeeping..... | 8 |
| VI.J. Special Requirements for Ignitable/Reactive Waste..... | 8 |
| VI.K. Encapsulation of Wastes | 8 |
| VI.L. Restriction On Liquids in Landfills..... | 8 |
| VI.M. Specific Requirements For Containers | 8 |
| VI.N. Closure/Post-Closure | 8 |
| Attachment VI-1 | Landfill Drawings and Specifications |
| Attachment VI-2 | Construction Quality Assurance Plan for Landfill Cell Construction and Closure |
| Attachment VI-3 | Run-On/Runoff Systems Requirements |

MODULE VI- HAZARDOUS WASTE LANDFILLS

VI.A. APPLICABILITY

- VI.A.1. The Permittee shall only dispose of hazardous wastes in the following landfill cells and the rated capacities shall not exceed the following nominal volumes shown below, except as allowed in Condition VI.D.2. In addition, measuring from the top of the berm, the average height of waste will be less than or equal to the maximum allowed height of waste in the cell at closure as shown below. The Executive Secretary has the authority to require the Permittee to conduct a survey of the cell to verify compliance with this condition.

| Cell Number | Capacity (Cubic Yards) ¹ | Maximum height of waste above the berm at closure, feet above avg. berm height |
|-------------|--|---|
| 4 | 535,500 | 26.41 |
| 5 | 510,300 | 31.27 |
| B/6 | 592,000 | 19.08 |
| 7 | 733,000 | 28.45 |

- VI.A.2. Landfill Cells 1, 2, and 3 have been closed and no additional wastes may be placed in these landfill cells.

- VI.A.3 Industrial Waste Cells 1 and 2 (IWC-1 and IWC-2) are included in this permit solely for the purposes of post-closure. These cells were originally designed and permitted for the disposal of non-hazardous waste, but have received small quantities of hazardous waste and as such are now regulated by this permit. These cells were closed in 1998.

VI.B. WASTE IDENTIFICATION

- VI.B.1. The Permittee shall dispose of the hazardous wastes listed in Attachment II - WAP Appendix 2 that meet LDR standards or approved variances in landfill cells 4, 5, 7 and B\6. Cell B/6 is a RCRA/TSCA disposal cell that may be used for disposal of the hazardous wastes listed in Attachment II – WAP appendix 2 that meet LDR standards or approved variances, for RCRA/TSCA combined wastes, and/or for TSCA only wastes as approved.

¹ Volumes are approximate. The point of compliance is the height above the berm. The berm height is calculated by averaging elevations measured every 50 linear feet around the perimeter (berm) of the cell.

- VI.B.2. The waste management practices specified in the Supplemental Waste Management Plan in Attachment II-8 shall apply to wastes F020, F021, F022, F023, F026, F027 and F028. On-site generated wastes derived from the handling of these residues shall also be managed according to the Attachment II-8.
- VI.B.3. The Permittee may dispose in Landfill Cells 4, 5, and 7, the following wastes not specified by EPA waste code numbers providing that all free liquids are stabilized or removed and documented in the Operating Record:
- VI.B.3.a. Floor drain, wheel wash and sump residues.
- VI.B.3.b. Non hazardous waste. Non-hazardous waste shall not be mixed with hazardous waste such that impermissible dilution occurs, as specified under R315-13-1.
- VI.B.3.c. CERCLA Hazardous Wastes. The Permittee is authorized to receive wastes that arrive without EPA waste code numbers, provided that these wastes are from remediation sites regulated under CERCLA or are defined as hazardous waste by this permit. These wastes shall be managed as hazardous wastes and are subject to the terms of this permit.
- VI.B.4. Free liquids shall not be disposed in any of the landfill cells, except as provided by Condition VI.K.
- VI.B.5. Wastes bearing a P999 waste code shall only be accepted if they are treatment residues which also bear the F999 waste code and are in media listed below:
- soils
incinerator ash, scrubber residues, slag, and baghouse dust
activated carbon
brine
- VI.B.6. The Permittee shall not issue a waste acceptance for any P999/F999 waste code combination that is not identified in VI.B.6. without prior written approval by the Executive Secretary.
- VI.B.7. RCRA/TSCA Wastes. The Permittee may receive wastes that arrive with EPA waste codes and are also regulated by TSCA. These wastes are subject to the terms of this permit.
- VI.B.8. The Permittee may accept CAMU-eligible waste, as defined in R315-8-21 (40 CFR 264.552(a)(1) and (2) by reference) pursuant to 40CFR264.555 provided that:

- VI.B.8.a. The Permittee notify the Executive Secretary and all persons on the public mailing list of the Permittee's intent to receive each CAMU-eligible waste stream(40 CFR 265.555(e)(1) and (2)).
- VI.B.8.b. The Permittee not place CAMU-eligible waste in a landfill cell until the Executive Secretary notifies the Permittee that he/she does not object to its placement in a cell at the facility (40 CFR 265.555(e)(4).
- VI.B.8.c The Permittee follow all additional applicable conditions of 40 CFR 264.555.

VI.C. GENERAL DESIGN AND CONSTRUCTION OF LANDFILL CELLS

- VI.C.1. The Permittee shall design and construct landfill cells to meet the current (as of the date of the Permit) state and federal regulations for hazardous waste landfills.
- VI.C.2. Construction of each landfill cell shall follow the construction quality assurance (CQA) program as outlined in 40 CFR 264.19 and in Attachment VI-2 of this Permit. The construction quality assurance plan shall cover all aspects of design and construction. The final design with installation procedures shall be approved by the Executive Secretary prior to commencement of construction.
- VI.C.3. The CQA plan shall remain part of the permit throughout closure and post-closure activities. This CQA Plan is Attachment VI-2 .
- VI.C.4. Field changes to the design or construction details may require a modification to the CQA plan. The "Change Control Procedures" in the CQA Plan shall be adhered to. If a modification to the CQA plan is necessary, as determined by the Executive Secretary, construction may only proceed after the Executive Secretary evaluates the impact of the change and approves the permit modification request. The Permittee shall document this field change and place a description of this modification in the facility's CQA plan and mail a copy to the Executive Secretary within seven calendar days of the field change. All field change orders shall become a permanent record and be kept with the CQA document.
- VI.C.5. All Class 1 field modifications, affecting the CQA plan after construction has started, may be submitted to the Executive Secretary in one Class 1 permit modification after completion of construction. This shall include all "as built" drawings and any changes of materials used for construction and any changes to the procedures used to construct the landfill cell.

- VI.C.6. All Class 2 and Class 3 permit modifications affecting the CQA plan, as specified in R315-3-15, shall require Executive Secretary approval after the appropriate public comment period.
- VI.C.7. Subsequent modifications to the landfill cell, after completion of the initial construction period, shall be considered either a Class 1, 2 or 3 permit modification. All approved modifications to the CQA plan shall be documented and kept with the CQA plan so future changes, corrective action or closures can be evaluated with correct information.

VI.D. GENERAL OPERATING REQUIREMENTS

- VI.D.1. The Permittee shall operate all landfill cells as required by R315-8-14 and as specified in this permit.
- VI.D.2. The Permittee shall not exceed the rated capacity of a landfill cell, except by a margin of five percent, nor shall the average waste elevation exceed the permitted final waste elevation except by a margin of one foot without written approval by the Executive Secretary. These deviations shall be allowed for periods up to 24 hours and only after notification of closure as required by Condition II.N.4. and only for the purposes of grading with power equipment to gain final contours. In addition, waste elevations are allowed to be exceeded for a period up to 24 hours to facilitate the proper placement of wastes and cover during normal day-to-day operations.
- VI.D.3. The Permittee shall repair any damage to the liner, including damage caused during landfill operations, by repairing the liner according to the liner repair procedures contained in the specific CQA Plan for the facility at the time the damage occurs. Documentation of repairs shall be submitted to the Executive Secretary. The Executive Secretary will review the documentation to verify that the repair was done in accordance with the CQA Plan.
- VI.D.4. In accordance with R315-8-14.2(a)(2) the leachate collection and removal system shall be operated in such a manner as to assure that the leachate depth over the primary liner does not exceed one foot.
- VI.D.5. The Permittee shall submit to the Executive Secretary on a quarterly basis (no later than 20 days following the end of the quarter), daily leachate collection/removal volumes for each applicable collection and detection sump. If the Permittee discovers the presence of liquid in the upper leak detection system ("B" risers) in quantities greater than 15 gallons per acre per day or if the Permittee discovers the presence of liquid in the lower leak detection system ("C" risers) in quantities greater than ten gallons per acre per day, the Permittee shall notify the Executive Secretary within 72 hours of discovery.

- VI.D.5.a. When an exceedence in the B or C risers occurs, a sample shall be obtained and analyzed for semi-volatile compounds. The analysis will be submitted to the Executive Secretary within ten days following the facility's receipt of the data from the laboratory. The Permittee shall provide other information deemed necessary by the Executive Secretary. Along with the analysis submittal, the Permittee shall submit a remediation plan to the Executive Secretary outlining the steps to be taken to correct the problem (i.e., repair of liner, closure of landfill cell). Upon approval, the Permittee shall implement the plan within the time frame specified by the Executive Secretary.
- VI.D.5.b. An alternate to Condition VI.D.5. is the one foot of head as defined in R315-8-14.2(a)(2).
- VI.D.6. Vehicles (e.g. trucks, backhoes, cranes, etc.) exiting restricted areas shall have their wheels/ tracks washed at the wheel wash facility located at the exit of the restricted area(s). Restricted areas are identified on the site drawing found in Attachment II-1.
- VI.D.7. The Permittee shall follow the waste analysis requirements contained in Condition II.D.
- VI.D.8. Treated wastes may be temporarily "put" onto a liner or in a container (put-pile) within a hazardous waste landfill cell while awaiting laboratory (verification) analyses. The liner shall be visible on all sides of the waste so as to prevent commingling with the waste in the landfill and other put-piles. "Temporarily" shall mean six months or less. Such wastes shall be labeled with a tracking number and located in such a manner that allows complete retrieval of the waste should the waste analyses subsequently determine that the waste does not meet the treatment standards of R315-13-1. No more than 250 put-piles may exist at any one time and wastes making up a put-pile shall be disposed within one year of receipt at GMF.

VI.E. MANAGEMENT OF RUN-ON/RUNOFF CONTROL FACILITIES

The Permittee shall manage all landfill cells with run-on and runoff control systems as required by R315-8-14.2 in order to not exceed required design capacity specified in Attachment VI-3.

VI.F. INSPECTIONS

The Permittee shall conduct inspections of all active and closed landfill cells in accordance with Condition II.F.

VI.G. PROCEDURES TO CONTROL WIND DISPERSAL OF WASTES

- VI.G.1. The Permittee shall comply with the requirements of R315-8-14.2(j) by covering material subject to wind dispersal within 24 hours of placement in the cell. The cover shall be maintained until additional wastes are applied to that portion of the cell. The cover shall only be as follows:
- a. Heavier bulk material (greater density);
 - b. Mechanically-sprayed water;
 - c. Dust-suppressing foam;
 - d. Other suitable material as approved by the Executive Secretary.
- VI.G.2. Water shall not be sprayed to the extent that ponding occurs in the landfill.
- VI.G.3. The Permittee shall cease operation of the landfill cell(s) (i.e. transporting waste into the cell and heavy vehicle movement within the cell, except for equipment utilized to control wind dispersal) when windy conditions exist that cause dust and any other waste to leave the cell(s).
- VI.G.4. For purposes of compliance with Condition VI.G., all material within the berm of the operational hazardous waste landfill cells is considered to be hazardous waste.
- VI.G.5. Leachate may be used for dust suppression in controlling wind dispersal, as provided in Section VI.H. of this module.
- VI.H. LEACHATE FOR DUST SUPPRESSION**
- VI.H.1. Leachate can be used for dust suppression in Cells 4, 5, 7, and B\6.
- VI.H.2. Leachate used for dust suppression shall not leave the cell where it is generated.
- VI.H.3. Leachate used for dust suppression shall not be stored and must be distributed the same day it is collected. Should the cell not require dust suppression, or weather conditions prohibit its immediate use, the leachate shall be managed as multi-source leachate (F039).
- VI.H.4. A pump and sprinkler system may be used to distribute leachate within the cell.
- VI.H.5. Leachate used for dust suppression shall be held in the vehicle or portable tank from which it will be distributed. If a pump is used to distribute the leachate, it must be pumped directly from the vehicle or portable tank in which it was collected.

- VI.H.6. Leachate used for dust suppression shall not be applied to the extent that ponding occurs.
- VI.H.7. Leachate used for dust suppression shall not leave the lined portion of the cell.
- VI.H.8. Leachate used for dust suppression shall be analyzed twice annually for the constituents listed in the table below. Should a maximum concentration as identified in the table be exceeded, the leachate shall no longer be used for dust suppression, but shall be managed as multi-source leachate (F039):

| Constituent | Maximum Concentration |
|--|-----------------------|
| Total HOC ¹ | 100 ppm |
| Arsenic | 5.0 mg/l |
| Barium | 100.0 mg/l |
| Cadmium | 1.0 mg/l |
| Chromium | 5.0 mg/l |
| Mercury | 5.0 mg/l |
| Lead | 0.2 mg/l |
| Selenium | 1.0 mg/l |
| Silver | 5.0 mg/l |
| ¹ The total of the constituents found in Appendix 4 of the Waste Analysis Plan. | |

- VI.H.8.a. The Halogenated Organic Compounds (HOCs), identified in Appendix 4 of the Waste Analysis Plan, shall be analyzed utilizing SW-846 methods 8260 and 8270, as modified.
- VI.H.8.b. Prior to using leachate for dust suppression, a composite sample shall be collected from each cell where leachate will be used. The sample shall be taken from the collection tank or vehicle the first time the leachate is used in an approved cell. The sample shall be analyzed for the HOCs, identified in Appendix 4 and the metals listed in the table above, a copy of the analytical results shall be provided to the Executive Secretary within 30 days of receipt by Grassy Mountain.
- VI.H.8.c. After the initial sample, a composite sample of leachate shall be collected and analyzed twice per year from each cell where leachate is used. The first sample shall be taken within five days of September 1 and the second sample within five days of March 1. The samples shall be analyzed for the HOCs, identified in Appendix 4 and the metals listed in the table above, a copy of the analytical results shall be provided to the Executive Secretary within 30 days of receipt by Grassy Mountain.

- VI.H.8.d. All constituents listed in Appendix 4 of the Waste Analysis Plan shall be analyzed for, with the exception of 3- Chloropropionitrile, which is not detected with Method 8260 or Method 8270.

VI.I. SURVEYING AND RECORDKEEPING

The Permittee shall comply with the surveying and recordkeeping requirements of R315-8-14.4 for all landfill cells.

VI.J. SPECIAL REQUIREMENTS for IGNITABLE/REACTIVE WASTE

The Permittee shall comply with all management provisions pertaining to ignitable and reactive wastes as required by R315-8-14.6.

VI.K. ENCAPSULATION OF REACTIVE WASTES

The Permittee shall not encapsulate and dispose of reactive wastes in landfill cells.

VI.L. RESTRICTIONS ON LIQUIDS IN LANDFILLS

- VI.L.1. The Permittee shall comply with all provisions of R315-8-14.8 pertaining to free liquid wastes. Containerized, solidified, or treated waste shall not contain free liquids as determined by the Paint Filter Liquids Test (SW-846, Method 9095) before being placed in a landfill cell as required by R315-8-14.8(d).

- VI.L.2. The Permittee shall stabilize all bulk and containerized liquids (except small lab. vials) prior to placement into a landfill unit. Materials used to stabilize waste shall not be biodegradable in accordance with R315-8-14(e).

VI.M. SPECIFIC REQUIREMENTS FOR CONTAINERS

- VI.M.1. The Permittee shall comply with R315-8-14.9 concerning the burial of containers in landfill units.
- VI.M.2. The Permittee shall comply with R315-8-14.10 concerning the disposal of small containers of hazardous waste in overpack drums and lab packs.

VI.N. CLOSURE/POST-CLOSURE

The Permittee shall close all landfill cells and provide post-closure care as required by Condition II.N, and R315-8-7 and R315-8-14.5 and Attachment II-7.